

THE MARKET FOR GOAT MEAT IN ALABAMA

Rory Fraser, PhD

Alabama A&M University

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Introduction

The increasing demand for goat meat was made evident in a national study funded by Winrock International (1986). Since then, this phenomenon has been well researched and documented in Florida (Denger and Locascio, 1989 and Johnson, 1989) and the southern region (Harwell and Pinkerton, 1993). Recent evidence of this growing demand is the 91% increase in meat goat sales, from 177,850 to 340,345 (UCED, 2002). In response, the number of meat goats produced in the nine southeastern states had increased by 82%, from 433,132 in 1992 to 788,397 in 1997.

In an effort to keep farmers abreast of these developments, the Alabama Department of Agriculture and Industries has provided complimentary copies of meat goat producers handbook and mails complimentary copies of the their monthly issues of Alabama Stockyards Reports, which has a section devoted to goat auctions. As a result, the Department has had to respond to numerous requests for information and presentations on goat production and marketing at local, county and regional marketing meetings. What has become evident is the growing number goat producers and land owners with an interest in rearing meat goats. This was particularly evident among landowners with small parcels and limited financial resources. These landowners seem to think that goat rearing among the trees on their property provide alternative, short and long-term income earning opportunities. At the same time, the start-up cost, time and expertise are within their limited financial and human capabilities. The Alabama Forestry Commission was so intrigued by the potential for the landowners to use goats to reduce fire-fuels from the forest floor they commissioned a study (Fraser, 2004) to study this possibility.

Landowners' interest, however, came with a great deal of uncertainty since these potential

producers were unsure about the demand for goats in their local region. This phenomenon is particularly evident with limited resources landowners who cannot afford to make even small risky investments. In Central Alabama for example, there are no goat processing facilities, which is perceived to be a major impediment to local producers.

The purpose of this paper is to report the study of the demand for goat meat in the Central Alabama region. In this study we explored consumers response to goat meat prepared in a variety of ways, their willingness to buy goat meat and the range of prices they were willing to pay for the meat.

Background

The market for any product has three major components: supply, demand and channels. Pinkerton et al (2001) identifies four sources of goat meat, three domestic and one international. The domestic supply comes from meat-type (Spanish, Boer-crosses, etc), fiber-type (Angora and Cashmere) and dairy-type (Nubian, Alpine, etc) goats, while Australia provides most of the foreign supply. The actual amount of goat meat supplied is nebulous at best because while there are records of imports, auction sales and slaughter house carcasses, there are considerable undocumented numbers of on-farm slaughters. This latter phenomenon is a factor in the demand for goat meat.

Most previous studies of the goat market have recognized and paid attention to the ethnic composition of the goat-meat market. Goat is the meat most eaten, globally. Religious preferences, social customs and dietary considerations shape the consumption patterns in the

USA. Recent migrants (Latin American, Caribbean, Africans, Indians etc) and some ethnic minority populations (Jews, Muslims, Hispanics etc) are the regular consumers of goat meat. Native African-American and White populations tend to consume this meat on special occasions such as 4th of July. The periods of highest demand, therefore, coincide with the major religious events, cultural festivities and national holidays. The patterns of consumption also vary by ethnic and cultural preferences. Some groups like goat kids, others like smaller or younger goats and many like larger/older goats. Some like their meat skin-on, others preferred their meat skinned. Muslims and Jews require their meat slaughtered to religious standards. Most prefer their meat fresh but many are willing to accept frozen imported meat.

Consumers meet their needs through different marketing channels: direct sales, wholesale and retail markets, or restaurants. Some ethnic or religious groups such as Africans and Muslims prefer to slaughter goats themselves. The former, because they like to burn the hair off for taste and skin-on meat. The latter, because they adhere to religious (*Halaal*) requirements. Most, however, obtain their meat from wholesalers and retailers, who in turn obtain their supplies from USDA inspected processing facilities or from importers. Goat meat is served in ethnic restaurants but is a rare delicacy in mainstream restaurants. These establishments obtain their supplies from wholesalers. In this study, therefore, the ethnicity of the respondents, their age and their exposure (people who lived in larger cities) and their association (friendship) with minorities, who prepared and cook goat, were among the questions asked.

Method

The study was conducted in 20 grocery stores across Alabama, with most of the effort focused in the center of the state. The stores were located in a mix of large and smaller metropolitan areas, as well as in larger rural communities. All were locally run franchises, known to be responsive to their local customers. A majority of the stores were located in Alabama's Black Belt where there is a significant African-American majority population. In each store, at least 20 (both consumers and non-consumers) were offered an opportunity to taste four preparations (bar-b-q, stew, curry and burger) and then interviewed. The meat was obtained from local producers, processed at the only USDA inspected facility in the state, and prepared in the kitchen of the Food and Consumer Sciences Department in Alabama A&M University (AAMU). Both the bar-b-q and burger were served on a bun, while the stew and curry were served on plain white rice. The bar-b-q was smoked, pulled from the bone, doused in sauce, packaged in vacuum sealed bags and frozen. The meat was gradually brought to room temperature, placed in bun and chilled overnight, when ready for use. The stew and curry were prepared, packaged with the rice in serving containers and chilled overnight. The burger were formed into patties from thawed ground goat meat (brought to room temperature in a refrigerator), grilled, placed into a bun and chilled overnight. The preparations were taken to the survey sites in ice-chests. They were warmed, in microwave ovens, and presented to the study participants.

The presentations to consumers were made by staff of Alabama Department of Agriculture and Industries, Alabama Forestry Commission, the Federation of Southern Cooperatives and AAMU. At each location, the sampling and survey station was set up at a visible location in the meat section of the store and customers were approached, given the rationale for the study and invited

to participate. Those who were willing to sample the meat and to participate in the survey were interviewed. Those who chose not to participate were asked to comment on why they did not participate. The survey form was completed by staff, who asked and noted the consumers response. Data was transferred from the questionnaire (see Appendix) for reading by a Scanitron (computer scanner) and processed using SPSS software. The questionnaire used in the study was developed and pre-tested during Goat Days at Tuskegee University and AAMU (APPENDIX A).

Results

Two stores in Huntsville, four stores each in Birmingham and Mobile and surrounding areas, two stores in Montgomery and Eutaw, and one store each in Selma, Tuskegee and Tuscaloosa were locations of the study. Four hundred and three usable questionnaires were completed and analyzed. Three hundred and thirty-one respondents tried the samples and 72 did not try (see APPENDIX B for summary table). Everyone was explicitly told that the samples were goat meat. Respondents were asked to respond to only those questions with which they felt comfortable, Those who chose not to answer some questions were not pressed to do so.

Demographics

There was fairly even distribution of population by age. The working-aged (19-65) population made up most (60%) of the respondents. Thirty-six percent were between the ages of 31-45 years old, and 27% were between 45 and 65 years old. Children (0-18 years), young adults (19-30 years and the elderly (65+ years) made up 11%, 17% and 9%, respectively. There was an even distribution of male (51%) and female (49%) respondents to the survey. Most of the respondents

were African-Americans (68%), while 27% were Whites and the rest (5%) were a mixture of Hispanic, African, Caribbean and Middle-Eastern natives. Most (63%) of the respondents had lived in a large city and almost all listed friendships with people of other races, especially African-Americans and Whites. About 50% were friends with (or knew someone who was) Hispanics and significantly less than half were friends of Caribbean, African, Asian and Middle-Eastern people. It is fair to say that while many of the respondents grew up in ethnically or culturally diverse backgrounds, had prior experiences with a variety of culinary styles, most of the respondents did not indicate similar diverse life experiences.

Non-Samplers

There were many people, approximately four out of five people, who refused to try the samples and refused to answer questions. Some were so repulsed by the word “goat” they moved to the other side of the aisle. Another person spat out the goat burger (she said she became revolted when she thought about what she was eating). The 72 non-samplers who took the time to speak to us provided some reasons why they did not try the samples, such as: “*Don’t like taste*”, “*I have goats as pets*”, “*Ate it before and don’t like it*”, “*Don’t try new meats*”, and “*It has a wild taste*”. Many had indicated they had some previous experience with goat meat. The elderly said it was something they frequently had on special occasions and they were offended by the smell, texture and taste. They were reminded of an animal that ate any and everything, smelled bad both live and cooked, and tasted awful because it was stringy, tough and had a gamey flavor. The younger non samplers either saw the goat as a pet or as wild meat. Those who had previously tasted it felt much the same way as the older non samplers and were repulsed. These responses can be summarized as revulsion based on a past negative experience or a negative perception based on the experiences of others. Many of these respondents were also very conservative

eaters. As one African-American respondent best captured this sentiment when he said *“I am 29 nine years old. I haven’t tried it and will not try it, now or ever. I eat beef, pork and chicken and I don’t need to try anything else.”*

Reluctant Samplers

There were a number of people who refused to try the samples, when first approached. However, after some discussion, some coaxing from friends or family members, or curiosity they reluctantly tried the samples. Their responses were exceedingly interesting: many were amazed by the taste, texture and aroma of the samples. With very few exceptions, they were all pleasantly surprised that it was so similar to other meats prepared in similar fashion. Many thought the bar-b-q was not unlike pulled-pork bar-b-q. Others thought that the stewed goat was very similar to stewed beef and most considered the curry-goat a unique experience. Most were willing to try a full meal and felt they would enjoy it in a restaurant. They were somewhat hesitant about cooking the meat at home because they were not sure they would be able to prepare it as well. All who liked it were willing to encourage a family member or friend to try it. In fact, some of them successfully encouraged a companion to try the sample.

Samplers

The older the sampler, the more likely they had tried goat meat previously. However, the older respondents were the least likely to sample the products. Men (89%) were more likely to sample than women (80%). People who had lived in rural areas all of their lives were more likely (93%) to sample than those who had lived (78%) in a large city. There was no difference in ethnic groups willingness to sample the product.

Response to Taste Test

The tasters reacted very favorably to the flavor of the bar-b-que, stew and curry preparations. An average of 75% of the respondents to the taste test liked the flavor of these three preparations and listed this feature most often, as the thing they most liked (over aroma, moisture or texture) about the preparations. However, they were not as forthcoming about the taste of the burgers. Only 25% mentioned liking the flavor and most suggested they liked something other than aroma, texture or moistness as the reason they liked the product. This may be a quirk of our preparation of these four samples. The first three preparations were well marinated in spices during preparation whereas the burgers were not. The latter was the only preparation in which the full flavor of the goat meat was presented to the consumer.

Table 1. Responses to survey questions

	% Total #	% Sampled	% 1st Time	Bar-b-que	Curry	Burger	Stew
Age Group							
0-18 years	11	97	79	83	88	25	88
19-30 years	17	70	68	78	69	25	89
31-45 years	36	85	57	75	77	29	69
46-65 years	27	84	49	72	78	30	57
65+ years	10	77	29	60	50	19	50
Lived in City							
Rural	36	98	63	61	65	19	50
Exposure	64	79	52	71	73	23	80
Ethnic Origin							
Other	5	89	15				
Black	68	82	54	73	75	23	67
White	27	79	66	82	67	26	82
Gender							
Female	49	80	60	82	72	29	65
Male	52	89	53	71	78	24	77
1st Time Taste							
Not 1st				82	83	20	74
1st Time				71	69	30	64

Willingness to Pay

All of the respondents (even the woman who spat it out) who tried the preparations were not averse to encouraging others to try goat meat. Most, including those who had previously tasted, were pleasantly surprised by the preparations. They were very enthusiastic about the curry goat, a flavor many found unique and intriguing. However, quite a few respondents were not so confident that would be able to prepare the meat as well as and were concerned that bad preparation would ruin their current enthusiasm.

With two exceptions (the spatter and a woman said she would not only eat it if someone else prepared it) all the tasters said they would buy the goat meat. Almost all said they would buy goat meat in a grocery store, although they were a few (14%, mostly non-natives) who said they would prefer to buy it from a local farmer. Twenty percent said they would buy their from a meat store.

Forty-one percent of the tasters indicated that Holidays were the most likely time they buy or will be willing to buy goat meat. Another 28% and 31% said they would eat goat meat monthly and weekly, respectively, if it were readily available. Sixty-seven percent of White tasters said they were likely to try it during holidays, and the other 33% said they would eat goat meat monthly, if it were readily available. On the other hand, 38%, 28% and 34% of African-Americans tasters indicated they would try the meat on holidays, monthly and weekly, respectively, if it was readily available.

The weighted averaged price the samplers indicated they were willing to pay was \$3.25 per pound. There were no significant differences across, ethnicity, gender, or whether they lived in a big city or were trying it for the first time. However, there was some indications that the responses were skewed to the lower price ranges among Whites and likely first-time buyers. There was some indication that the respondents were willing to pay a price differential for different cuts of meat. That is, some of the people who said they were willing to pay higher prices were also interested in the availability of the different cuts.

Table 2. Samplers Willingness to Pay for goat meat.

Price per lb	All Tasters	White	Black
\$2	26%	18%	29%
\$3	42%	46%	40%
\$4	23%	18%	24%
\$5	2%	18%	0
\$6	5%	0	5%
\$8+	2%	0	3%

Summary and Conclusion

One in five people were willing to sample or give their opinion on goat meat, of these respondents 18% were not willing to try different preparations of the meat. Non-participants in the survey gave a number of reasons, other than that offered by participants who did taste the samples, these included: too busy, not interested, do not sample etc which provided any indication of their preferences. However, a large number expressed sentiments similar to those expressed by non-tasting participants, i.e. they dislike the taste or the thought of eating goat meat. These findings suggest that there is a large resistance to goat meat because the meat is perceived to come from a pet, wild game or an unclean animal. On the other hand there was an exceedingly good response to the meat from first time tasters.

Tasters were uniformly very pleased with the products and were enthusiastic to share the fact that the meat was not unlike other more familiar variety of meats. Although 75% liked the flavors of the different preparations, there was a lack of confidence in their own ability to prepare the meat dishes. Some of the tasters were interested in recipes and others were interested in prepared meals. In discussion with some of these respondents they suggested they were not sure they would be able to master the smell, taste and texture of the meat if they prepared a dish. They

highly seasoned dishes e.g. curry garnered quite a bit of interest while the least favored preparation goat-burger was very lightly seasoned. This latter finding is remarkable in suggesting the potential development of a market for packaged meals.

The findings of this study indicate that there is a potential market for highly seasoned goat meat products. Changing the name, as others have suggested, from goat to something more appealing such as cabrito and chevron may overcome some of the consumers' negative biases. Offering seasoned meat e.g. stew, curry or bar-b-que with recipes may also entice buyers. Pre-cooked meals also seem to be a very effective way for overcoming some of the consumer resistance to trying. This alternative may provide the convenience consumers need to sustain their use of goat meat products. The development of food products to serve this market niche could lead to value-added production in Central Alabama, not unlike that developed around the cat-fish industry.

APPENDIX

Test Survey of Consumers' Preference for Goat Meat

Two groups of consumers were surveyed to determine their preferences for goat meat. The first survey was conducted during the lunch-hour break of a goat-producers' workshop at Alabama A&M University's (AAMU) Winfred Thomas Agricultural Research Station. Participants were offered an opportunity to try, compare and comment on goat barbeque, curry and meat patties. Forty-one people, approximately 50% African- and 50% White-Americans, tried one or more dish and responded to survey questions. Eight respondents said they were tasting goat meat for the first time. The majority tried barbequed goat and liked it for flavor but some were a little critical of the texture, considering it too dry. Ninety percent said they would try the meal another time and would recommend it to a friend or relative. Some were willing to buy and cook the meat. They were willing to pay as much as \$3.00 per pound for stew meat.

The second survey was conducted during the lunch-hour of an agricultural exposition at Alabama A&M University's (AAMU) Winfred Thomas Agricultural Research Station. Eighty people, mostly faculty, staff and students of AAMU participated in the study. The respondents included a number of migrants from the Caribbean, Africa and Southeast Asia as well as Afro- and White-Americans. Twenty-six of the participants, all natives, tried goat meat for the first time and liked it very much. The majority preferred curry and meat patties for their flavor but some did not like the curry's smell and the dryness of the patties. Over 90 percent indicated that they would buy the meat and try it, paying as much as \$3.00 per pound. They would also recommend it to their friends and family.

Both sets of survey respondents were not quite clear on the health and nutritional benefits of goat meat. The first group, mostly goat-producers, was interested in learning more about goat marketing, processing, and parasite and disease control. The second group, mostly the AAMU community, was interested in learning about health, nutritional and economic benefits of goats versus beef and other red meats.

These two pilot studies were a useful test of the survey instrument and provided some insight in the tastes and preferences of a cross-section of people who will have higher representation in the full study. These early findings suggest that consumers, if exposed to goat meat, could develop a preference for this meat and could be interested in purchasing it at the local grocery or meat store.